• USPTO

Serial No. 09/469,791

Docket No.: 113335F

### REMARKS

As can be seen from the above listing of the claims, various ones of the claims have been canceled. In addition, some of the claims have been amended to correct minor errors, to improve their form, and/or to more particularly point out that which applicants' regard as their invention. Some of those claims have been amended to include recitations from various canceled claims.

The present invention is directed to methods and apparatus for reserving packet network resources for calls. The invention, more particularly, relates to such methods and apparatus wherein, for a given call, the resources of two or more packet networks are reserved and the networks have different resource reservation policies.

The claims now pending in the application are directed to several important features of the invention, all of which relate to the fact that the different networks have different resource reservation policies, as just mentioned. Those claimed features are not shown or suggested by the cited prior art, as will now be discussed.

## 1) Timing of Resource Reservation—Claims 25, 32, 38, 42, 44, 77 and 79

In accordance with a feature of the invention, it is the case that in one (or more) networks, all the necessary resources are reserved at the same time, while in at least one other of the networks, the necessary resources are <u>not</u> all reserved at the same time. For example, resources for both directions of communication may be reserved at the <u>same</u> time within an access network whereas, in a backbone network, the resources for each direction of communication are reserved at <u>different</u> times, such as in response to separate indications or messages from calling and called parties, respectively.

In Arango, by contrast, it would appear that resources—such as bandwidth— are all reserved in all of the networks at the same time, e.g., in response to indications from the calling party. See, for example, col. 12, line 53 et seq in Arango.

Independent claim 25 is directed to this feature of the invention. This claim recites that resources in first and third packet networks are reserved based on an

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indication from a <u>calling</u> party (lines 15-17), whereas resources in a second network <u>and</u> the <u>previously recited third network</u> are reserved based on an indication from a <u>called</u> party (lines 18-20). Thus some resources are reserved in the third (e.g., backbone) network in response to an indication from the <u>calling</u> party whereas other resources are reserved in that same third network in response to an indication from the <u>called</u> party.

Similarly, independent claim 32 calls for a resource reservation policy for an access packet network wherein capacity in the access packet network for transmit and receive directions of communication is reserved at the <u>same</u> time, whereas a resource reservation policy for a backbone packet network is such that capacity in the backbone packet network for transmit and receive directions of communication is reserved at different times. See lines 9-14.

Independent claim 38 contains recitations of similar import at lines 4-9. Specifically, this claim indicates that, in response to a reserve message from a calling party, resources are reserved in a first access packet network for both directions of a call whereas, in response to that same reserve message, resources are reserved in a backbone packet network for only one direction of the call. Dependent claim 42 further indicates that in response to a second reserve message, received from the called party, resources are reserved in a second access packet network for both directions of a call whereas, in response to that second reserve message, resources are reserved in the backbone packet network for a second direction of the call.

Independent claim 44 contains at lines 10-15 recitations of similar import to the aforementioned recitations at lines 4-9 of claim 38.

Dependent claims 77 and 79 (which depend from independent claims 55 and 68, respectively) are also directed to this aspect of the invention.

In view of the foregoing, it is submitted that each of the above-mentioned claims, and thus each of the claims that depends from them, distinguishes the invention over the cited prior art and is allowable. This includes, then, claims 25-27, 30, 32-34, 38-40, 42-45, 48-49, 51-54, and 77-80.

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## 2) Resource Reservation on a Per-call and Multiple-Call Basis—Claims 34, 49, 78 and 80

In accordance with this feature of the invention, it is the case that in one of the two or more networks (e.g., an access network), resources are reserved on a per-call basis while in another of the networks (e.g., a backbone network), resources are reserved on a multiple-call basis. Limitations directed to this feature of the invention are contained in claims 34, 78 and 80.

The Office action has cited Arango in combination with Shaffer as anticipating claims directed to this feature of the invention. Shaffer, in particular, is cited for its teaching of reserving resources for conference calls. Applicants will assume for purposes of discussion, without necessarily agreeing, that it would be obvious to combine Arango with Shaffer in the manner suggested in the Office action. However, it is submitted that even though a conference call involves multiple parties, a conference call is still one call. Therefore there is no basis to assert that resources in any network are reserved in the cited Arango/Shaffer combination "on a multiple-call basis," as recited in claims 34, 78 and 80.

Claim 49 also references reserving calls on a multiple-call basis and distinguishes the invention from the Arango/Shaffer combination as well.

It is thus submitted that each of claims 34, 49, 78 and 80 distinguishes the invention over the cited prior art and is allowable.

# 3) One Device Reserves Resources In More Than One Network, The Networks Having Respective Different Resource Reservation Policies—Claims 38, 44, 51-54, 55 and 68

In accordance with this feature of the invention, a packet network device or network edge device reserves resources in more than one network, in accordance with its network's own resource reservation policy. That is, rather than a different device for each of (say) two networks reserving resources for its respective network, a single

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device does it for both. Limitations directed to this feature of the invention are contained in independent claims 55 and 68, as well as in dependent claims 51-54.

This feature of the invention is also incorporated into independent claims 38 and 44 in that each of those claims recite that resources are reserved in a first (or access) network in response to a reserve message and resources are reserved in a backbone network in response to that same message. See claim 38, lines 4-9 and claim 44, lines 4-9.

The rejections of the aforementioned claims all point to Arango. However, applicants find nothing in Arango showing or suggesting a packet network device (claim 55) or a network edge device (claims 51, 53 and 68) that reserves packet network resource in more than one network, in accordance with each network's own, different resource reservation policy. Nor do applicants find anything in Arango showing or suggesting that packet network resources are reserved in two networks in response to the same reserve message, per claims 38 and 44.

It may be noted that these claims do not simply cover a case where a single device (or a single message) simply reserves different resources in two (or more) networks. Rather, in accordance with this feature of the invention, a single device or message is able to reserve resources in different networks accordance with those networks' different resource reservation policies. A resource reservation policy is a set of rules that defines how resources are reserved for a given network, rather than being a actual resource reservation per se. This definition of "resource reservation policy" has been incorporated into both claims 55 and 68. Support for this language can be found, for example, at p. 49, lines 17-18, of applicants' specification.

It is thus submitted that each of claims 38, 44, 51-54, 55 and 68, and thus each of the claims that depends from them, distinguishes the invention over the cited prior art and is allowable. This includes, then, claims 38-40, 42-45, 48, 49, 51-62 and 65-80.

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### 4) Selecting One of a Plurality of Resource Reservation Policies—Claims 44, 57, 70, 75

In accordance with this feature of the invention, a given network may have a plurality of resource reservation policies, and the resource reservation that is carried out for a given network for a given call is based on a selected one of the plurality of resource reservation policies. Thus applicants disclose that the backbone network could have two policies for reserving resources for the two directions of communication. One policy is that those resources are all reserved at the same time. The other policy is that the reservation of resources for one direction of communication is carried out separately from the reservation of resources for the other direction of communication. A particular one of those is chosen for actual use at a particular time.

Limitations directed to this aspect of the invention are contained in claim 44 (lines 6-9), claim 57 (lines 1-4), claim 70 (lines 1-4) and claim 75 (lines 1-4).

The Office action has cited Arango in combination with Ash as anticipating claims directed to this feature of the invention. Ash, in particular, is cited for its teaching of reserving resources based on different levels of service. Applicants will assume for purposes of discussion, without necessarily agreeing, that it would be obvious to combine Arango with Shaffer in the manner suggested in the Office action. However, reserving different resources for different levels of service, per Ash, is the result of implementing a particular one reservation policy-namely the policy in Ash that different amounts or types of resources are reserved for different levels of service that the Office action has pointed to. Indeed, the Office action points to only that single reservation policy in Ash. Contrary to applicants' claim language, then, there are no plurality of policies in Ash from which to select.

It is also noted that, as discussed above, independent claim 55, from which claim 57 depends, as well as claim 68, from which claims 70 and 75 depend, both explicitly define what is meant by a resource reservation policy.

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In view of the foregoing, it is believed that all of the claims now in the application are in condition for allowance. Reconsideration and passage of the application to issue are earnestly solicited.

Respectfully submitted,

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